

AMENDMENTS TO THE CLAIMS

Please amend claims 1-7, cancel claims 8-31, and add new claims 32-48, as shown below.

1 1. (Currently amended) A method for responding to a request to transfer
2 data between a first virtual machine (VM) in a virtual computer system and a data
3 storage unit within a multipath data storage system, the method comprising:
4 determining a plurality of ~~multipath routing information related to possible~~
5 paths over which the data could ~~may~~ be routed;
6 determining that a failure has occurred that prevents the transfer of data
7 over a first path of the plurality of possible paths;
8 determining VM-specific information related to the first VM ~~in the virtual~~
9 ~~computer system; and~~
10 ~~based on the multipath routing information and the VM-specific~~
11 ~~information, deciding whether to route the data transfer request; and~~
12 ~~if a decision is made to route the data transfer request, then, based on the~~
13 ~~multipath routing information and the VM-specific information, selecting a path~~
14 ~~over which to route the data.~~
15 in response to the determination that the failure has occurred that
16 prevents the transfer of data over the first path, suspending the first VM.

1 2. (Currently amended) The method of claim 1, further comprising, in
2 response to the determination that the failure has occurred that prevents the transfer of
3 data over the first path, failing over to one or more alternate paths, in which the VM-
4 specific information indicates an amount of disk bandwidth that is allocated to the VM.

1 3. (Currently amended) The method of claim 1, wherein the data is not
2 routed to the data storage unit 2, in which a decision is made not to route the data
3 transfer request because routing the data transfer request would cause the VM's
4 allocation of disk bandwidth to be exceeded.

1 4. (Currently amended) The method of claim 1, in which the VM-specific
2 information indicates the first VM's priority relative to other virtual machines.

1 5. (Currently amended) The method of claim 4, wherein the first VM is
2 determined to have a lower priority than one or more other virtual machines ~~1, in which~~
3 ~~the multipath routing information indicates the available paths over which the data may~~
4 ~~be routed.~~

1 6. (Currently amended) The method of claim 1, wherein the first VM is
2 suspended until the failure is corrected ~~5, in which the multipath routing information~~
3 ~~further indicates a pending data transfer load for each of the available paths over which~~
4 ~~the data may be routed.~~

1 7. (Currently amended) The method of claim 2, wherein the first VM is
2 suspended until a fallback occurs ~~1, in which a load distribution function, based on the~~
3 ~~multipath routing information and the VM-specific information, is used in selecting a path~~
4 ~~over which to route the data.~~

Claims 8-31 (Cancelled)

1 32. (New) A method for responding to a request to transfer data between a
2 first virtual machine (VM) in a virtual computer system and a data storage unit within a
3 multipath data storage system, the method comprising:

4 determining a plurality of possible paths over which the data could be
5 routed;

6 determining that a failure has occurred that prevents the transfer of data
7 over a first path of the plurality of possible paths;

8 determining VM-specific information related to the first VM; and
9 in response to the determination that the failure has occurred that
10 prevents the transfer of data over the first path, migrating the first VM to a
11 different physical computer.

1 33. (New) The method of claim 32, further comprising, in response to the
2 determination that the failure has occurred that prevents the transfer of data over the
3 first path, failing over to one or more alternate paths.

1 34. (New) The method of claim 32, wherein the data is not routed to the data
2 storage unit.

1 35. (New) The method of claim 32, in which the VM-specific information
2 indicates the first VM's priority relative to other virtual machines.

1 36. (New) The method of claim 35, wherein the first VM is determined to have
2 a lower priority than one or more other virtual machines.

1 37. (New) A computer program embodied in a computer-readable medium,
2 the computer program being executable in a virtual computer system in support of one
3 or more virtual machines (VMs), the computer program performing a method for
4 responding to a request to transfer data between a first VM in the virtual computer
5 system and a data storage unit within a multipath data storage system, the method
6 comprising:

7 determining a plurality of possible paths over which the data could be
8 routed;

9 determining that a failure has occurred that prevents the transfer of data
10 over a first path of the plurality of possible paths;

11 determining VM-specific information related to the first VM in the virtual
12 computer system; and

13 in response to the determination that the failure has occurred that
14 prevents the transfer of data over the first path, suspending the first VM.

1 38. (New) The computer program of claim 37, wherein the method further
2 comprises, in response to the determination that the failure has occurred that prevents
3 the transfer of data over the first path, failing over to one or more alternate paths.

1 39. (New) The computer program of claim 37, wherein the data is not routed
2 to the data storage unit.

1 40. (New) The computer program of claim 37, in which the VM-specific
2 information indicates the first VM's priority relative to other virtual machines.

1 41. (New) The computer program of claim 40, wherein the first VM is
2 determined to have a lower priority than one or more other virtual machines.

1 42. (New) The computer program of claim 37, wherein the first VM is
2 suspended until the failure is corrected.

1 43. (New) The computer program of claim 38, wherein the first VM is
2 suspended until a failback occurs.

1 44. (New) A computer program embodied in a computer-readable medium,
2 the computer program being executable in a virtual computer system in support of one
3 or more virtual machines (VMs), the computer program performing a method for
4 responding to a request to transfer data between a first VM in the virtual computer
5 system and a data storage unit within a multipath data storage system, the method
6 comprising:

7 determining a plurality of possible paths over which the data could be
8 routed;

9 determining that a failure has occurred that prevents the transfer of data
10 over a first path of the plurality of possible paths;

11 determining VM-specific information related to the first VM; and
12 in response to the determination that the failure has occurred that
13 prevents the transfer of data over the first path, migrating the first VM to a
14 different physical computer.

1 45. (New) The computer program of claim 44, wherein the method further
2 comprises, in response to the determination that the failure has occurred that prevents
3 the transfer of data over the first path, failing over to one or more alternate paths.

1 46. (New) The computer program of claim 44, wherein the data is not routed
2 to the data storage unit.

1 47. (New) The computer program of claim 44, in which the VM-specific
2 information indicates the first VM's priority relative to other virtual machines.

1 48. (New) The computer program of claim 47, wherein the first VM is
2 determined to have a lower priority than one or more other virtual machines.